Localizing mobile learning policy for maximum return on investment and stakeholder satisfaction

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Starting Point

- **'There is widespread agreement that policy should encourage broadband deployment and reduce digital divides. The vast majority of the policy debate centers on the appropriate means to realize the potential benefits of broadband'**
  - **Bauer, J., Kim, J. & Wildman, S. (2005). An integrated framework for assessing broadband policy options. Michigan State Law Review, 21.**

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UNESCO's Policy Guidelines

- **Core policy is provision of robust and affordable broadband and mobile networks**
- **Delivery must consider equity, safety, advocacy and resources**
- ***These are generic guidelines, which need to be adapted to local conditions***
  - *http://unesdoc.unesco.org/images/0021/002196/219641e.pdf*

New Zealand

- **Informative global case study**
- **Schools largely self-governing, categorised in socio-economic deciles**
- **Government taking major initiatives in**
  - **National broadband for schools**
  - **Internal school networks (including wireless)**

» **Note: all financial figures included in this document are in New Zealand dollars (NZD)**

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Research Questions

- **How is mobile learning policy enacted in New Zealand and what policy assumptions underlie return on investment (ROI) projections?**
- **What can this tell us about localizing mobile learning policy for maximum ROI and stakeholder satisfaction?**

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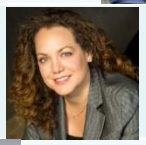
Stakeholder Interviewees

Sector	Representative	
National government *Ministry of Education*	Howard Baldwin (Manager, Sector Engagement)	
School *Orewa College*	Kate Shevland (Principal) Mark Quigley (Deputy Principal)	 
Commercial service provider *Isometric Solutions*	Conrad Stewart (Managing Director)	
Educational trust *Manaiakalani Trust*	Dorothy Burt (Professional Learning Programme Leader)	
Educational researcher *University of Waikato*	Noeline Wright (Senior Research Officer)	
Crown agency *Network 4 Learning*	John Hanna (CEO)	
Industry organisation *NZTech*	Candace Kinser (CEO)	
Local government organisation *ATEED*	Brett O'Reilly (CEO)	

Intervention Strategies

- **‘Medium-intervention strategies can be considered an effective broadband policy in the light of the empirical analysis.’**
  - **Cava-Ferreruelaa & Alabau-Muñozc. (2006). Broadband policy assessment: A cross-national empirical analysis. *Telecommunications Policy* 30(8)**

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Investment in UFB

- **Overall investment in ultra fast broadband (UFB) is $1.5bn**
  - **Government contributing $1.35bn with private co-investment**
- **$28.2 million for fibre connections from school boundaries into the schools**
  - **http://www.med.govt.nz/sectors-industries/technology-communication/fast-broadband**

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School Broadband

- **97.7 per cent of schools and 99.9 per cent of students will receive ultra-fast broadband capability by 2016, with the remaining 2.3 per cent of schools in remote areas given wireless or satellite services**
  - **http://www.minedu.govt.nz/theMinistry/EducationInitiatives/UFBInSchools.aspx**

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SNUP

- **The School Network Upgrade Project (SNUP) to upgrade internal school networks**
- **Includes a wireless option**
- **$600 per student**
  - **Approx 750,000 students, if all schools were upgraded**
  - **$450 Million (!)**
  - **http://elearning.tki.org.nz/Ministry-initiatives/Getting-connected2/SNUP**

Return on Investment

- **Measured in $**
- **‘Profit’ or ‘Savings’**
- **What are these in education?**

UFB RoI Projection

- **‘Alcatel-Lucent estimated the gains in education at $3.6b [over 20 years]. The benefits included the “consumer surplus” – gains to consumers that aren't directly reflected in higher incomes or GDP’**
  - **http://www.stuff.co.nz/business/industries/6450713/Huge-payoff-from-ultrafast-broadband-predicted**

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Measured ROI

- ***'Half within improved teaching and learning … leading therefore to better student outcomes, 30% around streamlining and making administration easier for schools … 20% benefits of centralised procurement to drive down costs'*** **(Govt.)**

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Better Teaching and Learning

- ***'The return on investment is a better educated, better prepared, graduating cohort … students who are more aware of what the future might hold'*** **(School)**
- ***'Opportunities for learning as a young person are exponentially improved by UFB'*** **(Trust)**

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Streamlining Administration

- ***'Streamlining school administration, moving a lot of school systems onto the cloud… gives you richer systems…[After the Christchurch earthquake] The school itself wasn't functional but people would get on the Internet and return to study'*** **(Local Govt.)**

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Reducing Overheads

- ***'One of the immediate benefits [of a fibre network] was to reduce the number of hours that kids spent on buses being shipped from one school to another so they could receive specialist teaching'*** **(Agency)**

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Consumer Surplus

- **What something is 'worth' over and above what it costs to consume**
- **Note:**
  - **producer surplus (profit) + consumer surplus = social surplus**

What it's 'Worth'

- *'The flow on effect for our lowest socio-economic community is that suddenly they are able to access a whole world that they were never able to before…it's life changing'* **(Trust)**
- *'Kids come to school early. There is a decline in truanting, in in-class off-task behaviour and other anti social things'* **(Govt.)**

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Return in Opportunity

- ***'ROI is probably one of the most unquantifiable of all - what you're doing is providing an opportunity, the means for people to access any kind of knowledge any time…Making the Wi-Fi the schools have available in some way for the community to use so that poverty itself doesn't become an impediment'*** **(Researcher)**

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Policy Challenges

- **Policy faces challenges in:**
  - **Changes to education**
  - **Meeting the (future) needs of the economy**
  - **Levels of participation**
  - **Degree of specification**
  - **The multi faceted and long term nature of creating equity**

Changes to Education

- ***'In about five years students will be able to do their assessments online any time they feel like it so that has huge implications for how the learning in schools is structured'*** **(Researcher)**
- ***'I think it changes the whole nature of how we train teachers'*** **(School)**

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Needs of the Economy

- ***'Right now we have a deficit of 15,000 [IT people] how do we actually urgently and directly fix this situation? or do we forget about being a technology enabled country?'*** **(Industry)**
- **'More technologically developed economies may actually need fewer educated people'**

Chang, H-J. (2010). 23 Things They Don't Tell You About Capitalism.

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Levels of Participation

- ***'Schools don't typically like central control. There's an all of government scheme for purchasing computers. We've got two and a half thousand odd schools, less than 30 have signed up, and yet it's cheaper. They like to do their own thing.'*** **(Provider)**

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Degree of Specification

- ***'It would've been useful to have had a little more input from the market … seems a little like we've undercooked it'*** **(Agency)**
- ***'Some of the ministry schemes are totally over specified…the school is paying 20% of something they shouldn't be paying for'*** **(Provider)**

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Long Term Equity

- ***'It'll take generations to truly resolve the inequity of experience or the inequity of outcome across our society and across demographics so the further forward we can look the better'*** **(Agency)**

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Local Policy Questions (1)

- **Do you drive people towards ICT usage or give them the option?**
- **Do you address today's questions or tomorrow's?**
- **To what extent do you educate people to be able to create ICT artefacts using industrial tools?**

Local Policy Questions (2)

- **How can we get on and do things without leaving some people behind?**
- **Are concepts such as ICT, mobile devices, 21st century skills, still relevant to future education policy?**
- **To what extent should central policy drive local procurement and practice?**

Contact

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